United States
Department of
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FOREST
SERVICE

IDAHO
PANHANDLE
NATIONAL
FORESTS

RECREATION SUPPLY & DEMAND

RECREATION OPPORTUNITY SPECTRUM

SUPPLY AND DEMAND
on the

IDAHO PANHANDLE NATIONAL FORESTS

by

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Abstract

The Idaho Panhandle National Forests administers over 2.4 million acres of forested land in the five northern counties of north Idaho. The counties are Boundary, Bonner, Kootenai, Shoshone and Benewah. The recreation use is moderate drawing the majority of its users from the Spokane, Washington, metropolitan area. The IPNF, in the process of their Forest Plan, needs to know what the Forest can supply and what demand there is for it. Two coefficient tables show the per acre output for recreation by Recreation Opportunity Spectrum settings. The demand is shown in RVDs by ROS setting class, based on existing use projected to the year 2030. This projection is based on demand figures developed by the Pacific Northwest Rivers Basin Commission.

Introduction

The Recreation Opportunity Spectrum, ROS, has been adopted for use by the U.S. Forest Service and the Idaho Panhandle National Forests (IPNF). The ROS outlines a process for the analyzing of the recreation resources on the National Forests. This process consists of inventory of attributes that lead to the delineation of land and water areas that provide recreation setting opportunities. These setting opportunities are identified by six classes; these classes are points on a recreation spectrum. The six classes range from Primitive to Urban with Semi-Primitive Non-Motorized, Semi-Primitive Motorized, Roaded Natural and Rural in between. These six classes define the supply component and are delineated by mapping Physical, Social and Managerial attributes. The mapping criteria is:

Physical
- Remoteness
- Size
- Evidence of Humans

Social
- User Density

Managerial
- Managerial Regimentation and noticeability

The ROS classes are mapped and capacities determined for each class, based on the setting or supply components. It is the capacities that are primarily being discussed in this paper.

The National Academy of Sciences defines demand as, "Recreation demand is a conditional statement of the participation that would result at a given time and in a given place under a specific set of conditions and assumptions about an individual and his or her social relationships and the availability of recreation resources."

In an economic sense, demand is defined as a schedule of quantities that an individual or group of individuals will purchase at various prices. (Wennergren and Johnston, 1974).

Based on the ROS classes, demand will be looked at by activities for each ROS class. So that we can predict the ability of the IPNF to provide the diversity of outdoor recreation settings that are needed to meet the direction, refer to the publication, "The Forest Service role in Outdoor Recreation, USDA Forest Service, 1978."

The market area that the IPNF draws users from is the eastern part of the State of Washington, northern Idaho, western Montana. and the southern part of British Columbia. The major population center of the market areas is the Spokane metropolitan area, which accounts for about 54% of total population. The projection for population growth in the market area shows a 38% increase between 1970 and 1995, (Bonneville Power Administration, 1976). These growth projections reinforce the need for planning that will analyze our future needs in light of our capability to meet them.

Purpose

The objective of this study is to develop the supply of and demand for recreation by ROS classes, related to existing opportunities, and ability to monitor it. The Supply and Demand item of the ROS process is where we get to the definable numbers that can be analyzed in light of the IPNF's ability to provide for National, Regional and local needs for a diversity of recreation setting. The need was evident from the beginning of the planning process that there was a need to know that capability the IPNF has to supply recreation output on a per acre basis. This output should reflect both the physical and social capacities in an attempt to predict a realistic recreation output that will show the ability of the IPNF to supply recreation RVDs to meet demands for a broad spectrum of recreation experiences. These outputs must be workable in a monitoring system that can prove or disprove assumption that go into the Forest Plan. We also need to know what demand society has for recreation on the PINF. This demand must be in the same unit of measure as the supply so that they can be compared by ROS class. Thus, a system that gives a realistic RVD per acre output and predicts demand in RVDs by ROS class can be analyzed along with cost in the Forest Plan to provide a diversity of recreation experiences.

Literature Review

Supply and demand are terms that need to be defined and quantified. With that in mind, the material that has been written was reviewed. It indicated that carrying capacity is an indicator of the maximum supply. Supply is the ability to produce a product, in this case recreation. Wagar (1964) points out that carrying capacity has three major parts: (1) the impact of people on the recreation environment, (2) the impact of the recreation environment on people, and (3) management procedures for modifying these reciprocal impacts. This shows the interaction of people and the physical resources. Time is a factor in carrying capacity in that it is the experience that can be sustained for a given time period. (Lime, 1970). The concept of carrying capacity is useful in making management decision if viewed realistically (Marnell 1976). Capacity can be judged only against the management objectives for a specific area (Lucas and Stankey 1974).

Management objectives should be applied to land areas to meet the recreation opportunities which are most highly preferred or demanded. Opportunity experience should be provided on the area most appropriate for it (Driver and Brown 1978). This idea has both supply and demand being a part of the identification of areas of land that are best suited to provide the experiences that are preferred by the public. Demand for goods and services is a schedule of the total amount of the commodity that would be purchased at alternative prices (Lewis 1977). This is an economic demand; and is what most researcher and recreation planners refer to today. There are many types of models being used in the process of determining demand for recreation. One of these methods is a gravity model, which is based on the distance between the origin and destination and the origin population and characteristics of the destinations (King 1977). The advantage of this type of model is that it is accurate and the information needed for it is usually readily available.

Methodology - Supply

Supply is defined here as the ability of the land to produce recreation outputs under a given set of management practices. The outputs are measured in recreation visitor days, a RVD being 12 hours of recreation use. This same unit of measure, RVDs, will be used to predict demand. Supply for both developed and dispersed recreation has to be in a form that can be analyzed in the linear programming Forest planning process on the IPNF. NFMA regulations require that we must determine our ability to supply goods and services in response to society's demand, 219.5(e).

Dispersed and developed recreation are looked at separately because of their differing requirements. The need to predict supply as it relates to dispersed recreation on the IPNF leads to the development of recreation coefficients, RVDs, per acre per year, that will reflect a realistic appraisal of the land's ability to absorb and attract recreation use under different management regimes. A question in development of coefficients was what affected use?

To begin with, factors that would affect dispersed recreation use were reviewed. Attractiveness, usability and accessibility were the three main factors that were considered. The attributes that could be identified in Analysis Areas, delineation criteria, and management prescriptions were listed and evaluated as to their effect on basic output levels. Analysis Areas are defined in the planning process as units of land that will respond to management similarly. Definable attributes included roading, habitat type, riparian, slope, and soil sensitivity.

The following is the list of the factors that were felt affect recreation and the assumption about the factors. It is these assumptions that guided the construction of the Prescription Coefficient Guides.

Factors that <u>will affect Recreation Use</u>

- roads, existing, and open
- changes in existing visual quality
- stand age
- silvicultural methods
- existing stand or regenerated stand
- visual quality objectives
- slope of the ground
- soils
- proximity to water
- prescribed management

Attractiveness is measured by the existing visual condition and the visual quality objectives assigned to each prescription. The existing visual condition on the IPNF has not been inventoried at this time. Roads were determined by the IPNF's three Landscape Architects as being the most significant factor in rating EVC. In the IPNF's planned data base there are existing miles of roads per square mile. A sample was taken to see what the relationship was between existing road density and the existing visual condition (Appendix A). This sample showed

that areas with more than 2 miles per square mile of inventoried roads have an existing visual condition of 4 or greater. Existing Visual Condition is measured on a scale of 1 to 6. EVC 1 are areas where there is no evidence of human activity and 6 are areas where changes in the landscape are in glaring contrast to the natural appearance. Areas with an EVC of 4 or greater have a visual scene that is perceived to be a modification of the characteristic landscape. Visual Quality Objectives are assigned to each prescription and are a measure of our future attractiveness. Water as a visual component adds to the attractiveness of almost all scenes. This, in turn, attracts people to the area.

Usability is a function of land and management to support recreation activities. Soils are divided into two groups for the purpose of analyzing the effect in the Forest Plan. These groups are sensitive soil and non-sensitive soils. The sensitive soils have compaction, erosion and mass failure potential, all of which would restrict the recreation use because of the fact that the IPNF will not allow recreation management activities that lead to environmental degradation. Slope of the land is in two groups for the delineation of analysis areas. The plus 40% group restricts recreation use in that on these land the usable areas for camping, riding, both motorized and non-motorized, walking and the majority of the outdoor type recreation activity are very limited. Proximity to water is more of an effect on attractiveness than usability, but the accumulative effect of the area around water is well documented (Brockman, 1961) and shows in the fact that about 46% of the recreation use on the IPNF is water related. Management actions have positive and negative effects on recreation participation or outputs. Intense recreation management geared to providing recreation facilities that add to the recreation experience, can easily add to the number who participate a positive effect. Timber management that creates large openings in the tree canopy have a negative effect because of the manner in which the residual material is treated and people, like animals, like some cover. So the more trees removed per acre, the less RVD per acre. In areas where grizzly bear habitat is being managed, recreation use will be restricted to minimize grizzly human conflict.

Accessibility relates directly to the amount of roads and trails that are open to use by recreationists. The Road Natural Class as described in the ROS is the area 0 to ½-mile from a usable road. This leads to the assumption that the minimum open road density for an ideal RH experience is 2 miles per square mile.

The Prescription Coefficient Guides, consisting of two tables, were developed to aid in the development of the per acre output for analysis in the Forest Planning model. Forplan is the linear program being used on the IPNF. This program is strongly oriented to timber planning. It looks at two kinds of prescription; one for existing stand and one for regenerated stands. This is the reason for two coefficient tables. Table # 2 reflects the attributes that are pertinent to existing stands or areas prior to implementation of a management prescription. Table #3 reflects the attributes related to regenerated stands or areas after implementation of a management prescription.

Assumption about effects on Recreation Use

- evidence of man as reflected in VQO's is an important criteria in determining use density.
- all roadless AA's are now meeting a VQO of R or PR and will continue to do so until roaded.
- roaded AA's with more than 2 miles/section of existing roads have an existing VQO of M or MM.
- roaded AA's with between 0.1 and 2 mile/section of existing roads have an existing VQO of PR.
- thinning of existing stands with a total road density less than 2 mile/section will have a VQO of PR.
- the only existing condition class that will be thinned prior to regeneration harvest, are seed sap and seed sap overstory.
- timber harvest methods have an effect on recreational use. People, like animals, like some cover. So the more trees removed per acre, the less RVD per acre.
- on existing stands that are not going to be thinned prior to regeneration harvest, only one of the 3 timber prescriptions will be applied, (T3).
- intense recreation management will take place only on regeneration prescriptions, and then only after implementation.
- water is a great attraction; about 40% of the recreation use of the IPNF is water-related.
- Prim. RVDs will only be produced on AA's with Wilderness capabilities, as all inventoried Prim. acres are in Proposed Wilderness areas.
- inventoried rural areas are only 4% of the total Forest acres. Also, recreation activities associated with Rural on the IPNF are only different from RN in the area of development and activities around developments. Therefore, Rural RVD will be combined with RN RVDs for dispersed recreation experiences. Developed Recreation RVDs will show Rural outputs.
- each prescription is assumed to have an adequate trail system.

The Prescription Coefficient Guides were constructed around three components, one the factors that affect recreation use, these are:

- Visual Quality, as expressed in Table #2 by existing visual condition and in Table #3 by Visual Quality Objectives.

- Open Road Density
- Slope
- Soils
- Timber Harvest
- Recreation Management
- Grizzly Habitat

The second part is the adjustment multipliers. They reflect the extent the factors have on recreation usability. These were primarily developed on professional judgment based on observations. Third is the basic output levels. These are the basic per acre output in RVDs per year for the four ROS settings that are significant on the IPNF. The four ROS settings are Primitive, Semi-

primitive non-Motorized, Semi-primitive Motorized and Road Natural. In order to develop realistic output, it was felt that we must relate this basic output level to existing use on the IPNF. This basic output should also be the lowest number that would produce a coefficient very near to our existing use under our present management practices.

This lead to a challenge. Use on the IPNF or any other National Forest, has not been reported by ROS classes in the past. This is a problem not only for the development of coefficients, but also for the development of demand by ROS classes. So the method and assumptions for solving the problem will be applied to both supply coefficients and use demands. In looking at the historic use on the IPNF, use activities were reviewed. Only the activities which were more than 1% of the total Forest use were used. This represents about 89% of the total use, (Appendix A). Activities were separated by ROS classes so that we would know which activities are happening in each ROS setting.

The RIM Activity Crosswalk, Form 2300 1K, was used as the prime information source for the division of reported dispersed use by ROS classes. The RIM Activity Crosswalk reports use by areas for each activity. There are six area categories: General Underdeveloped, Recreation Roads, Recreation Trails, Land and Ponds, Reservoirs and Impoundments, and Rivers and Streams. Some assumptions were made in regard to the Activity Crosswalk to proportion the activity use by ROS classes. The assumptions are:

- all use on Roads is in the RN class.
- all use on Reservoirs and Impoundments is in the RN class.
- all Developed use is in the RN class
- all interpretive related activities are in the RN class.
- all downhill skiing is in the RN class.
- all power boating is in the RN class.
- all water skiing is in the RN class.
- all camping auto and trailer is in the RN class.
- all picnicking is in the RN class.
- gathering forest products use is in the RN class.
- all auto use in the general undeveloped area is in the SPM class.
- all snowmobiling in the general undeveloped area is in the RN class.
- all horseback riding in the general undeveloped area is in the RN class.
- all motorized trail use is split 35% SPM and 65% RN.
- all non-motorized trail use is split by proportion of trail mile per inventoried ROS classes.
- hiking in the general undeveloped area is relative to access or trail miles; therefore, this use is in the same proportion as non-motorized trail use.
- all other activities are split by proportion, based on acres of inventoried ROS classes.

ROS Acreage Inventory

ROS	Net Acres Inventoried	% Forest
Primitive	17,568	1
SPNM	160,223	6
SPM	403,866	16
RN	1,802,905	73
R	93,712	4
U	62	0

ROS Trail Mileage Inventory

ROS	Trail Miles*	% of Total
Prim	31	2
SPNM	165	12
SPM	482	33
RN	163	52
R	18	1
Total	1,459	100

*Trail miles as measured on a map with a scale of 1 im. = 1 mile, not actual miles.

Based on the preceding assumption, Table #1 was developed and shows the existing use by activity by ROS class. This is total use on the IPNF, so Developed and Dispersed use were split at the end of the process.

The information from Table #1, along with the acres of inventoried ROS classes, indicated the existing per acre use by ROS.

$$\text{Prim.} - \frac{\text{RVD } 4600}{\text{Acres } 17,568} = .26 \text{ RVD/acre}$$

$$\text{SPNM} - \frac{\text{RVD } 28,200}{\text{Acres } 160,223} = .18 \text{ RVD/acre}$$

$$\text{SPM} - \frac{\text{RVD } 90,700}{\text{Acres } 403,866} = .22 \text{ RVD/acre}$$

$$\text{RN} - \frac{\text{RVD } 913,100}{\text{Acres } 1,802,905} = .50 \text{ RVD/acre}$$

The assumption was made that the existing use per area is the IPNF's ability to produce recreation outputs under the most restrictive situation as presently managed. The most restrictive situation is reflected in the Prescription Coefficient Guide multipliers for the regenerated stands on Table #3. The Grizzly bear constraints were not used to define the most restrictive situations because they are not managed as such presently, are located on only a few acres in one location, and a forest average was being sought. Also, in the SPM class, the .3 factor for Timber Harvest was not used because it applied for only a short time period. The .3 and .4 for Visual Quality were not used because this Ros class has to be in an essentially roadless area and the majority of the Forest that is unroaded meets R or PR VQO. By taking the existing RVD per acre through the most restrictive situation for each ROS class, The basic output level was established. Region One through their Regional Office, sent out suggested ranges by ROS classes for their basic output levels. Reference Appendix B. These suggestions were used to verify the calculation of basic output levels.

Table #1

Recreation Use IPNF
1980

Percent of IPNF Use by ROS Classes

RIM Activity Codes	Prim	SPNM	SPM	RH	Not on IPNF R	U
Dev. (3.1) 1.1 (M-RVDs)	Disp. 1% --	Disp. 6% (.1)	Disp 16% (.3)	Dev. 100% Disp. 77% (4.8)		
11.1 (0)			Disp. Gen. Un. 100 (5.3)	Disp. Road 100 (202.7)		
11.2 (0)			Disp. Trail 35% (5.8)	Disp. Trail 65% Disp. Road 100% Gen. Un. 100% (47.7)		
11.3 (2.5)			Disp. Trail 35% (1.6)	Disp Trail 65% Disp. Road 100% Disp. Gen.Un. 100% Dev. 100% 103.3)		
12.2 (11.8)				Dev.) 100% Disp) (33.4)		
14.1 (.9)	Gen. Un) Disp. Trail) 2% (.8)	Gen. Un) Disp Trail) 12% (4.6)	Gen. Un) Disp. Trail) 33% (12.5)	Gen. Un. 53% Disp. Trail 53% Disp. Rd. 100% Dev. 100% (30.3)		
14.3 (.2)	Disp. Trail 2% (.1)	Disp. Trail 12% (.8)	Disp. Trail 33% (2.3)	Disp. Trail 53% Disp. Rd. 100% Dev. 100% Disp. Gen. Un. 100% (10.4)		

Recreation Use IPNF
1980

RIM Activity Codes	Prim	SPNM	SPM	RH	Not on IPNF R	U
15.1 (1.6)	Lake, River 1% (.1)	Lake, River 6% (.4)	Lake, River 16% (1.2)	Dev. 100% Res. & Im. 100% Lake 77% River 77% (8.4)		
22.1 (25.6)			Lake, River 16% (1.7)	Dev. 100% Res. & Im. 100% Lake, River 82% (41.7)		
22.3 (2.4)				Disp., Dev. 100% (13.0)		
31.1 (.16)	Lake, River 1% (.6)	Lake, River 6% (3.8)	Lake, River 16% (10.2)	Dev. 100% Res.& Im. 100% Lake, River 77% (89.7)		
41.1 (84.3)	Gen. Un. 1% (.7)	Gen. Un. 6% (4.1)	Gen. Un. 16% (11.0)	Dev. 100% Gen. Un. 100% (137.3)		
41.2 (66.8)				Dev. 100% Disp. 100% (93.0)		
41.3 (68.6)				Dev. 100% Disp. 100% (81.9)		
41.4 (47.4)	Disp. 1% (.2)	Disp. 6% (1.5)	Disp. 16% (4.1)	Dev. 100% Disp. 77% (67.2)		

Recreation Use IPNF
1980

RIM Activity Codes	Prim	SPNM	SPM	RH	Not on IPNF R	U
43.1 (50.6)				Dev. 100% Disp. 100% (83.8)		
51.3 (21.6)				Dev. 100% (21.7)		
51.5 (6.6)	Disp. 1% (.1)	Disp. 6% (.8)	Disp. 16% (2.3)	Dev. 100% Disp. 77% (17.6)		
61.1 (.1)	Disp. 1% (1.4)	Disp. 6% (8.3)	Disp. 16% (22.1)	Dev. 100% Disp. 77% (106.6)		
61.3 (.1)	Disp. 1% (.2)	Disp. 6% (1.2)	Disp. 16% (3.3)	Dev. 100% Disp. 77% (15.8)		
64.1 (.8)				Dev. 100% Disp. 100% (63.8)		
81.7 (19.3)				Dev. 100% Disp. 100% (20.4)		
All other Activities	1% (.4)	5% (2.6)	16% (7.0)	Dev. 100% 77% (194.4)		
Total Developed Use	4.6	28.2	90.7	1488.9 -575.8		
Dispersed Use	4.6	28.2	90.7	913.1		

The following is the result of the basic output calculation:

Prim - .5 RVDs/acre/year
.26 + .7 + .7 = .26 The suggested R1 guideline is .5. A sample area was looked at. The Mallard-Larkin Pioneer Area, in 1979, which produced .44/RVD/acre. The .5 looks reasonable and will be used.

SPNM - 1.0 RVDs/acre/year
.18 + .7 + .8 = .3. This was rounded up to 1.0, which is the low for the suggested R1 guidelines.

SPM - 1.5 RVDs/acre/year
.22 + .5 + .6 = .5 = 1.5. The suggested R1 guideline has a range of 1.0-20.0. The 1.5 will be used.

RN - 25.0 RVDs/acre/year
.50 + .3 + .7 + .6 + .5 + .3 = 26.4. The suggested R1 guideline has a range of 10.0 - 300.0. It was rounded to 25.0.

Table #2

PRESCRIPTION COEFFICIENT GUIDE

Dispersed Recreation RVD/acre/year

	Wilderness Prim.	SPNM	SPM	RN
Basic output level	.5	1	1.5	25
Visual Quality				
+2 mile/section existing = EVC 4+ before initial harvest	0	0	0	.3
-2 mile/section existing = EVA 3- before initial harvest	1.0	1.0	1.0	1.0
Open Road Density				
+2 mile/section	0	0	0	1.0
less than 2 mile/section	0	0	.5	.7
No roads open	1.0	1.0	1.0	0
Slope				
less than 40%	1.0	1.0	1.0	1.0
more than 40%	.7	.7	.6	.6
Soils				
Sensitive	.8	.8	.5	.5
Non-sensitive	1.0	1.0	1.0	1.0
Riparian Zone				
Yes	1.1	1.1	1.1	1.1
No	1.0	1.0	1.0	1.0
Grizzly Habitat				
Essential	.5	.5	.5	.5
Occupied	.7	.7	.7	.7

Table #3
PRESCRIPTION COEFFICIENT GUIDE

Dispersed Recreation RVD/acre/year

	Wilderness Prim.	SPNM	SPM	RN
Basic output level	.5	1	1.5	25
Visual Quality				
M or MM after implementation	0	0	.3	.3
*PR/NRT on M or MM after Implem	0	0	.4	.4
PR or R after implementation	1.0	1.0	1.0	1.0
Open Road Density				
+2 mile/section	0	0	0	1.0
less than 2 mile/section	0	0	.5	.7
No road open	1.0	1.0	1.0	0
Slope				
less than 40%	1.0	1.0	1.0	1.0
more than 40%	.7	.7	.6	.6
Soils				
Sensitive	.8	.8	.5	.5
Non-sensitive	1.0	1.0	1.0	1.0
Riparian Zone				
Yes	1.1	1.1	1.1	1.1
No	1.0	1.0	1.0	1.0
Timber Harvest				
Thinning of existing stand	0	0	1.0	1.0
SW first Reg. cut	0	0	.3	.7
SW final Reg. cut	0	0	0	.5
CC	0	0	0	.3
Recreation Management				
Intense Rec. Mgt.	1.1	1.1	1.1	1.1
Grizzly Habitat				
Essential	.5	.5	.5	.5
Occupied	.7	.7	.7	.7

*Applies to prescriptions that meet a VQO of M or MM but have Recreation Trail in them.

An example of using the guide in Table #2.

AA delineation criteria:
Roaded, +2 mile/section, all open
Grizzly Habitat, Essential
+40% slope
Non-sensitive soil
Condition class, seed sap.
Not Riparian

Question

Need to know the RVD/acre/year the AA has the capacity to produce before implementation of the prescription.

going to the table we find

Basic RVD/acre	.5	1	1.5	25
Visual Quality	Prim.	SPN M	SPM	RN
+2 mile	0	0	0	.3

The multipliers under each ROS class are multiplied by the basic output levels for that class. So for Prim. we multiply 0 x .5 and get 0. There are no existing outputs for Prim. in this AA. The same is true for SPNM and SPM. Under RN, the multiplier is .3, so we have .3 x 25 = 7.5. There will be RN output from this AA so we look at the next RN factor Open Road Density, all roads are open so we multiply 7.5 x 1.0 = 7.5. On to the next factor Slope + 40%, it has a multiplier of .6 under RN, so 7.5 x .6 = 4.5. Next Soils, Non-sensitive, it has a multiplier of 1.0, 4.5 x 1.0 = 4.5. The AA is not Riparian so we go to the next factor, Grizzly Habitat. We have essential habitat so we have a multiplier of 0.5, 4.5 x 0.5 = 2.25 (25 x .3 x 1.0 x .6 x 1.0 x 1 x 0.5 = 2.25). This AA has the capacity to produce 2.25 RN RVDs/acre/year before a prescription is implemented. The same logic is used to find the output for each ROS class by time period, i.e., first regulated harvest, final Reg. harvest, etc.

Developed recreation is easier to work with than Dispersed use because of the known acreage of existing Developed sites and good use information.

From our RIM information on acreages and PAOT for existing site, I developed the following procedure:

Total PAOT and acreage was obtained for all existing sites on the IPNF. By dividing the total PAOT by acres, a PAOT/acre for the average Development Level 2 site was indicated. It was assumed that on an average our Development Level is Level 2, FSM 2330. To convert this to a RVD/acre/year coefficient, the average PAOT/acre was multiplied by the average use season (120 days). This produced a seasonal or yearly PAOT/acre. It was then assumed that 1.5 RVD was the average length of stay at our campgrounds and that the desired maximum use of a well managed site is 40% of its capacity. Multiplying the yearly PAOT by the average length of stay and the percentage of capacity produced the RVDs/acre/year coefficient for the average site, Level 2.

Development Levels 3 and 4 coefficients were developed by looking at the descriptions of the Development Levels in the FSM 2330 and found that Level 3 has a density of about 1.5 times as many family units as Level 2, and Level 4 has about 2 times the density of Level 2. So the average Level 2 coefficient was multiplied by 1.5 and 2 to find Level 3 and Level 4 coefficients.

Developed Area Coefficient

Present Use

Total PAOT (All sites)			8504
Developed Acreage		758	
Peripheral Acreage		1520	
89 sites -		2278 acres	
Present Average PAOT/Acre -	3.73		
Average Development Level - 2			

Coefficient Computation - Level 2 site

Average PAOT	3.73		
Average Season of Use	x 120		
Season PAOT		= 448	
Average length of stay, RVD's		x1.5	
Reasonable RVD Capacity			= 672
Desired Maximum Use Level			x 40%
Indicated Development Level 2 Coef.			269

Average Site - 25.6 Acres

These figures were checked against existing use per acre on three heavily used campgrounds and found to be reasonable.

Sample:

Level 4, Samowen -	635 RVD/acre
Level 3, Luby Bay -	321 RVD/Acre
Level 3, Robinson Lake -	430 RVD/acre

Adopted Development Outputs

Development Level 2 - 269 RVD/Acre/Year
Development Level 3 - 403 RVD/Acre/Year
Development Level 4 - 530 RVD/Acre/Year

Methodology - Demand

The basis for this approach is tied to the lack of available data and time to develop it. Because of this situation existing information was researched that could be interpreted for our use. Three sources were found that could be manipulated and still obtain usable information. They are the Idaho SCORP 1977; Regional Recreation Data Program for the Northwest, by the Pacific Northwest River Basin Commission, PNRBC, June 1975; and Region One USFS Recreation Participation Projections, October 1980, by Wendell Beardsley. All three have some advantages and disadvantages.

The Participation Projections from Region One USFS used a simple linear regression model based on population trend in north Idaho and past reported use on the Forest from RIM. The disadvantage of this approach is that the past RIM use information appears to have been reported erratically. Therefore, there is little evidence of past trends on the IPNF. Because of the poor data, these projections show that in the year 2015, the IPNF will have a demand for exactly the same number of dispersed RVD's, (1,032,000) that we are reporting in 1980. Advantages to these projections are: they are in RVD's, completed, and getting acceptance by the Regional Forester, should be easier.

The Idaho SCORP and the Pacific Northwest River Basin Commission have similar outputs Activity Occasions which are defined as: A standard unit of recreation use consisting of one individual participating in one recreation activity during any reasonable portion or all of one day. One individual participating in three different activities during the day is recorded as three "activity occasions."

They also used the same basic survey information in their models. PNRBC used SCORP survey information from Idaho, Washington and Oregon in their process. The advantages and disadvantages for the Idaho SCORP and the PNRBC are essentially the same expected for two items. One is the length of time for the projections. The SCORP only projects to the year 2000 and PNRBC projects to the year 2020. The second is that the PNRBC is being updated on a regular basis, so the outputs reflect the latest information.

The PNRBC study was chosen for our use because of the feeling that it is the most up-to-date, more reliable than Region One's projection, and projects to 2020. In the Forest Plan we must look at least to the year 2030. With the PNRBC's projection of use to the year 2020, it is believed that our planners will get a better, more statistically sound, projection to the year 2030.

The PNRBC process is based on a gravity model which is part of an Urban Transportation Planning IBM System 360 program battery, developed for the U.S. Department of Transportation. This was selected because of its flexibility in application and its availability at the Washington Department of Highways. The projections for the model were obtained from the Business Economics - Economic Research Service. The model assumes that while participation will increase, not all activities will share equally in the growth, so for this reason three separate per capita growth rates were chosen. Stable, slow growth (30 percent increase by 2000), and rapid growth (70 percent increase by 2000). Sixteen activities are looked at in model and are grouped by their per capita growth as follows:

Stable	Slow Growth	Rapid Growth
Hunting	Picnicking	Swimming
Fishing	Sightseeing & Driving for pleasure	Boating
	Walking - Hiking	Water Skiing
	Horseback Riding	Playing Outdoor games
	Camping	Golfing
	Attending Outdoor Sporting/Cultural Events	Bicycling
	Other Activities	Participating in Snow Activities

The model produces outputs in a variety of formats. The information used is Activity Occasions for the 16 activities by counties for the years 1970, 1980, 2000, and 2020.

The first step in the process of estimating demand for the IPNF was to look at the PNRBC figures. These are by 16 activities. The IPNF reports use for 50 activities. So, a need to group the IPNF's 50 activities by the PNRBC 16 was identified. Of the 16 PNRBC activities only 12 are relative to the wild land recreation on IPNF. Golfing, outdoor sports, bicycling, and playing outdoor games are the activities that dropped from consideration. By comparing activity definitions, the IPNF activities were grouped. (Appendix C). The next step was to convert Activity Occasions to RVD's. This is needed because of the needs of planning for outputs in RVDs and so one can compare past use with projections. To do this a Forest Service document was used. Recreation Activity Duration Factors, 11/80. (Appendix D). It gives activity duration estimates by USFS regions, in hours. The duration hours for Region One were used with averaging where there was more than one IPNF activity to a PNRBC activity. The result of this was RVD's by PNRBC activity for the years 1970, 1980, 2000 and 2020. (Appendix E). Then by using the existing use information that was calculated in the development of Supply Coefficients, existing RVD's were determined by PNRBC activities for ROS Classes, (Appendix C).

At this point, philosophy and assumptions have to be discussed.

Because of the lack of information and time, the author was convinced that the PNRBC projections are the best indicator of recreation demand available for north Idaho and the IPNF.

Recreation demand on the IPNF will continue to increase. This is very evident from looking at three projection approaches analyzed.

Assumption, all providers of recreation opportunities, will continue to provide recreation facilities and, therefore, use at near the same proportions as they did in 1980. The IPNF will, therefore, continue to provide the same proportion of the demand as it did in 1980.

The IPNF's 1980 use can be used as a base and increased by the same percent of increase projected in PNRBC. The PNRBC projected use for the years 1970, 1980, 2000 and 2020. A projection was needed for every 10 years up to the year 2030. By using a straight line proportion between these dates, use was interpolated and projected for the dates 1990, 2010 and 2030.

All developed activities are in the ROS class RN. Therefore, all developed demand will be shown in the one ROS class RN.

A percentage of the total RN demand as projected will be attributed to Developed Recreation. This demand will be measured against the IPNF's ability to provide developed recreation sites.

The percentage use in determining developed use demand is a function of the reported RIM use in developed sites in 1980 and the projected demand in 1980 for total RN, ROS class.

Use can be looked at and projected by activity and then totaled for each ROS class. This will reflect the PNRBC models per capita growth rates.

With the above assumptions in mind, the development of recreation demand proceeded, RVD/ROS/years. Taking the existing use for 1980 and dividing it by the 1980 projected use for each ROS class and activity, the percent of total projected demand was produced. The IPNF will consider for analyzing against its ability to supply, the IPNF's share. An example of this:

Activity 01 camping ROS class RN	Reported use 1980	Projected demand 1980
	37.94	1124.5

$$\frac{397.4}{1124.2} \times 100 = 34\%$$

34% of the projected camping use for each projection year will be the IPNF's demand for camping. This process will be done for each activity by ROS class and then totaled.

The results of the process produced the following recreation demand estimates for the IPNF, Appendix F.

IPNF Recreation Demand Projections by ROS Classes

RVD's (M)

ROS Class	1980	1990	2000	2010	2020	2030
Prim	4.6	5.1	5.7	6.7	7.3	8.3
SPNM	28.2	31.6	35.3	40.4	45.4	50.5
SPM	90.7	104.2	116.6	133.4	149.7	166.2
RN	913.1	1086.5	1219.4	1391.7	1562.1	1733.3
Total	1036.6	1227.4	1377.0	1572.2	1764.5	1958.3
Developed Rec. in RN Class	575.8	691.9	808.2	961.7	1109.1	1259.7
Total Use	1612.4	1919.3	2185.2	2533.9	2973.6	3218.0

Notation

Demand projections for the PNRBC have a discrepancy in their activities 09 Hunting, and 16 Other Activities. It shows a future demand that is less than the number now reported as use in the ROS class RN. The SCORP for the same activities show a much higher demand. The relative growth indicated by the projections is felt as reliable. Our reported 1980 use is based on only the rate of increase as projected in the PNRBC. This feels comfortable with the projected IPNF demands for these activities, even though it is higher than the PNRBC figures.

Summary

This paper has looked at the two main aspects of the ROS process, Supply and Demand. The existing literature is lacking from the standpoint of looking at supply and demand as it relates to the Recreation Opportunity Spectrum settings. The drafts of the FSH 1900 that cover recreation planning is about the only reference there is to the ROS process. The supply as it relates to per acre coefficients is expressed in two prescription coefficient tables. The coefficient tables are made up of three parts. Physical and social factors that affect recreation use, the percentage of effect of each on recreation in a given ROS class, and the basic output level for each ROS class. There are two tables to reflect the use on an area of the forest: that for areas which has not had timber harvest in the past 50 years or so, and for those areas that are now being managed for timber production.

The demand on the Idaho Panhandle National Forests is a projection of the use report in 1980. The use for the base year 1980 is projected into the future based on the Pacific Northwest River Basin Commission's recreation demand projections. It is assumed that the use on the IPNF will continue to increase, and that all providers of recreation opportunities will continue to provide the same proportion of the demand as they are now. Therefore, the IPNF will provide the same demand proportions in the future as it is in 1980.

The most difficult part of the process was the development of existing use into ROS classes. The assumptions that were made need to be confirmed. The monitoring plan for recreation may well be the most important item that the Forest Plan produces. This plan must be structured to evaluate the conclusions that are written in this paper.

APPENDIX A

IDAHO PANHANDLE NATIONAL FORESTS

RECREATION COEFFICIENTS

Recreation Coefficient Factors

In Prescription Coefficient Guide Table #2, EVC is used as a factor in determining recreation coefficients. Because we do not have an existing visual condition inventory, we looked at information that does exist to see if any of it could be related to EVC. Existing road density appeared to be the best indicator of the existing visual condition.

The difference in recreation output or use was determined to be significant where the EVC changed from type 3 (PR) to type 4 (M). So we need to know if EVC can be determined by looking at existing road density and if so, what is the road density that separates those EVC types that are 3 or less from those that are 4 or greater. To answer these questions, random sample areas on the Forest were looked at.

Random sample areas, representing 2.5% of the Forest net acres, were located on Forest CA maps. The sample areas conform to CA boundary as near as possible so that existing road density figures in the Forest data base could be used.

The sample areas were rated for their existing visual condition, using Region 5's EVC system. The EVC was then compared with road density figures in Forest data base.

Sample area size is about 4000 acres, or the size of an average A.A. 12 sample areas were chosen to represent 2.5% of the Forest.

Existing road density for a sample area was figured from the information in the Forest data base, which consisted of mile per square mile and net acres by CA. The following formula was used to calculate the existing road density for our sample areas:

$$\frac{\text{CA acres X Existing Road Density}}{640} = \text{miles per CA}$$

$$\frac{\text{Mile per CA}_1 + \text{mile per CA}_2 + \text{mile per CA}_3}{\text{Total acre for sample area} \div 640} = \text{Existing road density per sample area.}$$

Of the 12 random sample areas, three were inventoried as having an existing visual condition of Type 4 or more and nine had an EVC of Type 3 or less. Of the nine rated Type 3 or less, five were EVC Type 3. Of the three rated Type 4 or more, one had an EVC of Type 4. The prime objective of the analysis was to determine what the breaking point is between EVC types 3 and 4 by existing road density as inventoried.

Looking at the 12 sample areas, an existing road density of two miles per square mile appears to be a good breaking point for determining the difference between existing visual condition types that are equal to or less than three. All sample areas show this except areas #3 and #7. Area #3 was inventoried as having an EVC of Type 3 and an existing road density of 2.78. Area #7 has an inventoried EVC of Type 4 and an existing road density of 1.99. A more intense analysis of these two areas shows that area #3, with its high road density, has been logged in a very sensitive manner from a visual resource standpoint. A discussion of this with other resource specialists in the S.O. led to the assumption that this area is an exception on the Forest. But it also reaffirmed our assumption that a higher road density can be accommodated with good visual resource management. This is reflected in our desired road densities. Area #7, which is very near to having an existing road density of two, was looked at again by dividing it into cleaner EVC types. This produced three EVC types.

	Acres	EVC	Existing Road Density
a.	1106	5	3.76
b.	440	4	2.73
c.	3087	2	1.23

The three parts of this sample area show a good relationship with the assumptions that an existing road density of two is a good break point between EVC types 3 and 4.

In area #7, the averaging of the EVC was influenced by the large portion of EVC type 2 in the area.

To confirm the road density breakpoint of two, three more areas with an EVC type of 4 were picked up. The existing road density was calculated and it was found that all three areas had an existing road density greater than two. This seems to confirm the assumption, and will use existing road densities, equal to two or less, as EVC of Types 1, 2 and 3.

Existing Visual Condition Types

DEFINITION	E.V.C. TYPE
"Untouched" Areas of 5,000 acres or more in which only ecological change has taken place except for trail construction.	1 = P
"Unnoticed" Changes in the landscape are not visually evident to the average person unless pointed out.	2 = R

DEFINITIONS	EVC TYPE
"Minor Disturbance"	
Changes in the landscape are noticed by the average person, but they do not attract attention. The natural appearance of the landscape still remains dominant.	3 = PR
"Disturbed"	
Changes in the landscape are easily noticed by the average person and may attract some attention.	4 = M
"Major Disturbance"	
Changes in the landscape are strong and would be obvious to anyone. These changes stand out as dominating impression of the landscape. Yet they are shaped so that they might resemble natural patterns.	5 = MM
"Drastic Disturbance"	
Changes in the landscape are in glaring contrast to the natural appearance. Almost anyone would be displeased with the effect and agree that rehabilitation is required.	6 = UM

These EVC definitions are from R-5 Draft Supplement to FSM 2380, dated May 18, 1979.

APPENDIX B

	Sample Areas - CA's	EVC	Existing Road Density
1	30502, 30504, 30505, 30506, 30508, 30510, 30511, 30513	6	5.8
2	66108, 66109, 66110, 66114, 66115, 66116, 66118, 66119, 66120, 66123, 66113	3	1.07
3	37202, 37204, 37205, 37206, 37207, 37401	3	2.78
4	80114, 80115, 80116, 80117, 80121, 80124, 80126, 80127, 80129, 80130, 80131, 80132, 82304, 82305, 82306, 83207, 82308, 82310, 82312, 82313, 82314, 82315, 82316, 82317	2	0.0
5	71505, 71506, 71508, 71510, 71511, 71521, 71529, 71530, 71531, 71536, 71528, 71723	2	0.31
6	85417, 85418, 85419, 85420, 85421, 85424, 85425, 85427	2	1.06
7	18711, 18712, 18713, 18714, 18809, 18810, 18811, 18812, 18813, 18814, 18815, 18816, 11206, 11207, 11208, 11209	4	1.99
8	32701, 32602, 36319, 36422, 36423, 36424, 36426, 36427, 36428, 36429, 36430, 36431, 36432	2	0.23
9	14801, 14802, 14803, 14804, 14805, 14806, 14807, 14809, 14812, 14813, 14814, 14815, 14816, 14817, 14818, 14819, 14820, 14821, 14822, 14823, 14824	5	2.87
10	74601, 74602, 74603, 74604, 74605, 74606, 74607, 74608, 74609, 74610, 74611	3	0.62

	Sample Areas - CA's	EVC	Existing Road Density
11	64701, 64702, 64707, 64708, 64801, 64802, 64803, 64804, 64806, 64807, 64808, 64809, 64810, 75426, 75427, 75428, 75429, 75430, 75431, 75432, 75433	3	0.02
12	60301, 60302, 60303, 60304, 60305, 60306, 60307, 60308, 60309, 60310, 60311, 60312, 60313, 60314	3	0.16

	Sample Area (Non-random) CA's	EVC	Existing Road Density
A	74408, 74409, 74410, 74412, 74416	4	2.48
B	17901, 17902, 17903, 17904, 17905, 17906, 17907, 17908, 17909, 17910, 17911, 17912, 17913, 17914, 17915	4	2.44
C	30706, 30707, 30708, 30709, 31402, 31403, 31404, 31405	4	3.70

APPENDIX-B

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
R-1

REPLY TO: 2310 Recreation System Planning February 1, 1980

SUBJECT: Recreation Opportunity Planning, (Ref: our 1/16)

TO: Forest Supervisors

In our January 16 memorandum transmitting the revised ROS Guidelines, we mentioned recreation capacity figures being used in the Regional Plan. For the full range of ROS Opportunity Classes, we suggest the following capacity ranges for use in Forest planning:

Primitive	0.5 RVD/acre/year
Semi-primitive, nonmotorized	1.0-10.0
Semi-primitive, motorized	1.0-20.0
Roaded, natural-appearing	10.0-300.0
Rural	100.0-1000.0

(and developed sites at 40 percent of theoretical capacity)

These capacity ranges are somewhat lower than those suggested in the ROS Guidelines. However, we feel they may be more appropriate to the Northern Region. Your comments and suggestions are encouraged; we would like to achieve a reasonable level of consensus on capacities, in order to have comparability between Forests.

for J. R. Price
Wm. A. WORF
Director
Recreation & Lands

3/26

APPENDIX C

Recreation Use
Existing Recreation Visitor Day of Use
for the Base Year 1980
by PNWRPC Activities

PNRBC Activities		RIM Activity Codes				MRVD's by Prim	SPNM	SPM	RN
01	Camping	41.1	41.2	41.3	41.4	.9	5.6	15.1	379.4
02	Picnicking	43.1							83.8
03	Swimming	22.1						1.7	41.7
04	Driving & Sightseeing	11.1	11.2	11.3				12.7	353.7
05	Fishing	31.1				.6	3.8	10.2	89.7
06	Boating	12.2	15.1			.1	.4	1.2	41.8
07	Water Skiing	22.3							13.0
08	Walking & Hiking	14.1				.8	4.6	12.5	30.3
09	Hunting	61.1	61.3			1.6	9.5	25.4	122.4
13	Horseback Riding	14.3				.1	.8	2.3	10.4
15	Snow Activities	51.3	51.5			.1	.8	2.3	39.3
16	Other Activities	All other activities				.4	2.7	7.3	283.4
						4.6	28.2	90.7	1,488.9

1612.4

APPENDIX-D

RECREATION ACTIVITY DURATION FACTORS FOR COMPUTING ACTIVITY OCCASIONS ON NATIONAL FOREST LANDS AND WATERS 1/

CODE	RECREATION ACTIVITY 2/	ACTIVITY DURATION ESTIMATES BY REGION								
		(1)	2	3	4	5	6	8	9	10
1.1	VIEWING SCENERY	2.0	1.5	1.0	.9	1.4	1.6	1.1	1.2	2.1
1.3	VIEWING ACTIVITIES (Spec.)	2.0	1.5	1.1	.5	1.2	1.4	1.3	1.3	.8
1.4	VIEWING WORKS OF HUMANKIND	1.0	1.0	.5	.4	0.6	.7	.8	.6	.4
11.1	AUTOMOBILE	3.0	2.5	2.2	2.5	2.1	3.2	2.5	2.2	1.5
11.2	MOTORCYCLES & SCOOTERS	3.0	4.0	1.9	2.7	2.4	3.0	3.6	2.5	2.3
11.3	ICE AND SNOWCRAFT	4.0	3.5	2.5	5.0	3.3	3.7	2.1	3.5	3.9
11.4	SPECIALIZED LANDCRAFT (ATV's)	3.0	3.0	1.9	.4	2.9	3.2	2.6	2.0	1.3
11.5	TRAIN & BUS TOURING	1.2	5.2	2.3	1.6	1.5	2.5	2.7	1.8	.8
12.1	TOUR BOAT, SHIP, FERRY	2.0	1.0	2.0	.3	1.2	3.8	3.0	1.9	7.0
12.2	BOAT, POWERED	2.0	4.0	2.5	4.4	3.0	2.6	3.2	4.1	5.4
13.1	AIRCRAFT, MOTORIZED	1.0	1.5	.5	2.1	.9	1.2	1.6	.8	1.5
13.2	AERIAL TRAMS & LIFTS	.5	1.0	.5	1.4	.3	.9	.8	.9	.3
13.3	AIRCRAFT, NON-MOTORIZED	4.0	2.0	2.6	1.5	3.4	1.7	2.2	1.4	.3
14.1	HIKING & WALKING	4.0	4.0	3.5	3.6	3.9	3.9	3.9	3.2	3.4
14.2	BICYCLE	1.0	3.0	1.6	2.1	1.8	2.9	1.9	2.4	.9
14.3	HORSEBACK	2.0	4.0	3.3	4.6	3.7	4.4	4.3	2.7	1.0
15.1	CANOEING	4.0	2.0	2.7	2.7	2.6	2.9	4.4	4.1	4.1
15.2	SAILING	3.0	2.5	2.9	4.3	3.5	3.1	3.2	2.4	4.5
15.3	OTHER WATERCRAFT	4.0	4.0	4.1	2.8	3.0	2.8	3.1	2.5	2.8
21.1	TEAM SPORTS	1.5	3.0	1.0	.9	1.8	1.4	1.6	1.5	1.9
21.2	INDIVIDUAL SPORTS	1.0	2.0	1.1	1.3	1.6	1.1	1.5	1.6	1.4
21.3	GAMES AND PLAY	1.0	2.0	1.2	1.7	1.6	1.4	1.5	1.9	1.8
22.1	SWIMMING & WATER PLAY	2.0	1.5	1.8	2.0	2.9	2.1	2.9	2.5	1.6
22.2	DIVING	2.0	2.0	.8	1.7	1.6	1.7	2.1	1.2	1.8
22.3	WATERSKIING & WATER SPORTS	2.0	2.0	1.3	2.0	2.7	2.3	2.6	1.6	.7
31.1	FISHING, COLD WATER	4.0	4.0	4.1	4.3	3.9	4.3	4.5	3.7	4.0
31.2	FISHING, WARM WATER	4.0	3.0	3.7	3.0	3.6	3.5	4.4	3.8	--
31.3	FISHING, SALT WATER	--	--	--	--	5.0	4.1	4.0	--	5.8
31.4	ICE FISHING	4.0	3.0	2.9	4.0	3.5	2.7	--	3.1	1.9
41.1	CAMPING, GENERAL DAY	4.0	6.0	6.6	6.3	5.2	7.0	8.2	5.3	5.7
41.2	CAMPING, AUTO	12.0	10.0	9.8	10.9	11.0	11.0	11.8	10.5	11.3
41.3	CAMPING TRAILER	12.0	10.0	10.9	10.9	10.0	11.9	11.8	10.4	11.3
41.4	CAMPING TENT	12.0	10.0	11.0	10.7	9.5	11.0	11.8	10.5	10.0
41.5	ORGAN. CAMPING, DAY	8.0	8.0	8.9	9.4	6.7	8.6	8.8	5.2	6.8
41.6	ORGAN. CAMPING, NIGHT	12.0	12.0	11.0	10.1	10.0	10.8	11.6	10.3	10.3
43.1	PICNICKING	2.0	2.0	2.8	2.6	3.1	3.6	2.5	4.0	2.0
46.1	RESORT & COMM. SERVICE	1.0	4.0	2.2	3.1	1.7	2.5	2.0	2.4	3.8
46.2	RESORT LODGING	12.0	12.0	10.1	11.3	10.0	11.0	11.7	10.5	7.4
46.3	RECREATION CABIN USE	20.0	18.0	14.2	15.7	13.7	15.4	17.9	12.3	15.0
51.1	ICE SKATING	1.0	2.0	1.4	1.2	2.4	1.7	3.3	1.5	1.8
51.2	SLEDDING, TOBOGGANING	2.0	2.0	2.5	2.1	2.3	2.6	2.1	1.5	2.0
51.3	SKIING, DOWNHILL	5.0	6.0	5.4	5.4	5.6	4.9	2.0	3.8	3.1
51.4	SNOWPLAY	3.0	2.0	2.7	2.2	2.5	2.8	1.8	1.4	1.8
51.5	SKIING, X-COUNTRY	3.0	5.0	4.3	5.7	4.5	4.1	3.0	3.7	4.2
61.1	HUNTING BIG GAME	6.0	5.0	7.3	7.1	6.0	7.8	7.0	6.9	6.8
61.2	HUNTING, SMALL GAME	4.0	3.0	3.9	4.3	3.5	3.8	4.6	4.4	2.5
61.3	HUNTING, UPLAND BIRDS	4.0	4.0	3.8	4.4	3.4	4.4	4.7	4.4	2.5
61.4	HUNTING, WATERFOWL	4.0	3.0	3.6	2.3	3.4	4.6	4.2	4.0	5.0
62.1	NATURE STUDY (WILDLIFE)	3.0	4.0	2.3	1.8	2.1	2.9	2.5	2.4	2.4
62.2	NATURE STUDY (HOBBY, EDU.)	3.0	2.0	2.5	2.6	2.1	2.7	2.4	2.7	2.5
63.1	MOUNTAIN CLIMBING	4.0	6.0	4.0	4.2	3.9	7.4	4.3	3.5	6.3
64.1	GATHERING FOREST PRODUCTS	4.0	3.5	4.3	3.2	4.0	4.7	3.5	3.3	3.2
81.1	VIEWING INTERPRETIVE EXHIBITS	.2	.2	.4	.5	.3	.8	.5	.6	.4
81.2	ATTENDING TALKS, PROGRAMS	1.0	.4	1.3	1.0	1.1	1.0	1.1	.9	.7
81.3	TOURING, GUIDED	1.0	.5	2.2	1.4	1.0	1.7	1.4	1.7	.6
81.4	TOURING, UNGUIDED	1.0	.3	1.4	1.1	1.6	1.4	1.2	1.2	.6
81.5	WALKING, GUIDED	1.0	.3	1.5	1.2	2.0	1.4	1.1	1.3	.8
81.6	WALKING, UNGUIDED	1.0	.5	1.2	1.2	.9	1.2	1.2	1.2	.4
81.7	VIEWING INTERPRETIVE SIGNS	.1	.2	.3	.2	.2	.3	.3	.4	.3
81.8	LISTENING TO AUDIO PROGRAMS	.5	.2	.4	.1	.2	.4	.4	.4	.1
81.9	GENERAL INFORMATION	.3	.3	.2	.2	.2	.3	.3	.3	.3

1/ Activity Occasion - A single experience in a single recreation activity by one visitor during a 24 hour day. A visitor may aggregate several activity occasions in one day. When properly calculated, activity occasions are an approximation of the number of people who participate in a given activity over time.

Activity Duration - The length of time (in hours and tenths of hours) that an average visitor may spend participating in a single recreation activity during a 24 hour day.

2/ Individual activity codes and definitions are found in FSH 2309.11. Updated activity codes are available in Interim Directive No. 2, Chapter 120, dated November 1980.

Revised 11/80

APPENDIX E

PNRBC - Recreation Projection - North Idaho
Recreation Output by Activities in Hundreds

County by year	01	02	03	04	05	06	07	08	09	13	15	16
Conversion Factors	.833	.167	.167	.278	.333	.250	.167	.333	.417	.167	.333	.304
1970 Benewah	1212	1576	--	2910	2242	1735	517	2466	379	420	999	920
Bonner	2865	1941	--	6048	1605	1252	401	2070	417	431	1030	932
Boundary	1979	1325	--	4306	971	646	228	1572	313	260	811	1030
Kootenai	2437	3341	--	6693	2699	2472	655	4008	553	798	1794	908
Shoshone	2597	3301	--	6677	2830	2284	627	4036	996	889	2277	909
Total AC	11090	11484	--	26634	10347	8989	2428	14152	2658	2798	6911	4699
RVD	9238	1918	--	7404	3446	2097	405	4713	1108	467	2301	1428
1980 Benewah	1485	1787	2495	3491	2307	2219	680	2856	397	493	1275	1031
Bonner	3515	2034	2505	7180	1502	1498	495	2264	425	452	1255	1099
Boundary	2407	1371	1423	4995	868	751	267	1642	304	273	969	1229
Kootenai	2909	3812	5429	8069	2833	3255	866	4709	571	936	2318	1045
Shoshone	3183	3740	6727	7965	2898	2927	815	4652	1029	1007	2897	1021
Total AC	13499	12745	18579	31700	10408	10650	3123	16123	2726	3161	8714	5425
RVD	11245	2128	3103	8812	3466	2662	522	5370	1137	528	2902	1649

County by year	01	02	03	04	05	06	07	08	09	13	15	16
Conversion Factors	.833	.167	.167	.278	.333	.250	.167	.333	.417	.167	.333	.304
2000 Benewah	2159	2189	3503	4885	2411	3284	1059	3717	431	620	1908	1345
Bonner	5109	2494	3344	10175	1562	2208	500	2915	470	561	1932	1418
Boundary	3532	1632	1783	6986	834	1055	422	2022	333	319	1454	1650
Kootenai	4332	5107	8764	11477	3285	5241	1419	6462	671	1295	3665	1357
Shoshone	4606	4992	10251	11209	3221	4545	1301	6198	1160	1329	4502	1332
Total AC	19738	16414	27645	44732	11313	16333	4701	12314	3065	4124	13461	7102
RVD	16442	2741	4617	12435	3767	4083	785	7098	1278	689	4483	2159
2020 Benewah	3080	2753	4772	6783	2638	4603	1541	4898	496	806	2744	1782
Bonner	7330	3128	4294	14290	1681	3113	1172	3803	546	694	2809	1881
Boundary	5090	2034	2246	9782	870	1454	633	2553	390	405	2122	2186
Kootenai	6148	6988	13337	16194	3907	7919	2181	8887	793	1789	5547	1309
Shoshone	6561	6753	14973	8734	3739	6707	1962	8414	1374	1778	6694	1773
Total AC	28209	21656	39622	55783	12835	23796	7489	28555	3599	5472	19916	8931
RVD	23498	3616	6617	15508	4274	5949	1251	9509	1501	914	6632	2715

Conversion Formula - (Activity Occasions x duration in hours of Avg. use ÷ 12 = RVD
from PNRBC study from USFS Recreation Activity Duration Factors 11/81

APPENDIX F
Dispersed Recreation Use by ROS Class
(M) - RVDs

PNRBC Act. Codes	Prim Present Use 1980 RIM	Prim. Total Use 1970	1980	1990	2000	2010	2020	2030	% of projected use to IPNF
		* .7	.9	1.1	1.3	1.6	1.9	2.2	
01	.9	923.8	1124.5	1384.3	1644.2	1997.0	2349.8	2702.6	.1
		--	--	--	--	--	--	--	
02	--	191.8	212.8	243.4	274.1	317.8	361.6	405.4	--
		--	--	--	--	--	--	--	
03	--	--	310.3	386.0	461.7	561.7	661.7	761.7	--
		--	--	--	--	--	--	--	
04	--	740.4	881.2	1112.4	1243.5	1397.2	1550.8	1704.4	--
		.6	.6	.6	.6	.7	.7	.8	
05	.6	344.6	346.6	361.6	376.7	402.0	427.4	452.8	.2
		.1	.1	.1	.2	.2	.2	.2	
06	.1	209.7	266.2	337.2	408.3	501.6	594.9	688.2	.04
		--	--	--	--	--	--	--	
07	--	40.5	52.2	65.4	78.5	101.8	125.1	148.4	--
		.7	.8	.9	1.0	1.2	1.4	1.6	
08	.8	471.3	537.0	623.4	709.8	830.4	950.9	1071.4	.1
		1.6	1.6	1.7	1.8	2.0	2.1	2.3	
09	1.6	110.8	113.7	120.8	127.8	140.0	150.1	161.2	1
		.1	.1	.1	.1	.2	.2	.2	
13	.1	46.7	52.8	60.8	68.9	80.2	91.4	102.6	.2
		.1	.1	.1	.2	.2	.2	.3	
15	.1	230.1	290.2	369.2	448.3	555.8	663.2	770.6	.03
		.3	.4	.5	.5	.6	.6	.7	
16	.4	142.8	164.9	190.4	215.9	243.7	271.5	299.3	.2
Total	4.6	4.2	4.6	5.1	5.7	6.7	7.3	8.3	

* .7 The lower number is the PNRBC projections.
923.8 The top number is the portion of the PNRBC projection that the IPNF will analyze as their share of the total use in north Idaho.

Demand Tables

APPENDIX F
Dispersed Recreation Use by ROS Class
(M) - RVDs

PNRBC Act. Codes	SPNM Present Use 1980 RIM	SPNM Total Use 1970	1980	1990	2000	2010	2020	2030	% of projected use to IPNF
		4.6	5.6	6.8	8.2	9.9	11.7	13.4	
01	5.6	923.8	1124.5	1384.3	1644.2	1997.0	2349.8	2702.6	.5
		--	--	--	--	--	--	--	
02	--	191.8	212.8	243.4	274.1	317.8	361.6	405.4	--
		--	--	--	--	--	--	--	
03	--	--	310.3	386.0	461.7	561.7	661.7	761.7	--
		--	--	--	--	--	--	--	
04	--	740.4	881.2	1112.4	1243.5	1397.2	1550.8	1704.4	--
		3.8	3.8	4.0	4.1	4.4	4.7	5.0	
05	3.8	344.6	346.6	361.6	376.7	402.0	427.4	452.8	1
		.3	.4	.5	.6	.8	.9	.10	
06	.4	209.7	266.2	337.2	408.3	501.6	594.9	688.2	.2
		--	--	--	--	--	--	--	
07	--	49.5	52.2	65.4	78.5	101.8	125.1	148.4	--
		4.0	4.6	5.3	6.1	7.1	8.1	9.2	
08	4.6	471.3	537.0	623.4	709.8	830.4	950.9	1071.4	.1
		9.2	9.5	10.1	10.7	11.7	12.5	13.5	
09	9.5	110.8	113.7	120.8	127.8	140.0	150.1	161.2	8
		.7	.8	.9	1.0	1.2	1.4	1.6	
13	.8	46.7	52.8	60.8	68.9	80.2	91.4	102.6	2
		.6	.8	1.0	1.2	1.5	1.8	2.1	
15	.8	230.1	290.2	369.2	448.3	555.8	663.2	770.6	.3
		2.2	2.6	3.0	3.4	3.8	4.3	4.7	
16	2.6	142.8	164.9	190.4	215.9	243.7	271.5	299.3	2
Total	28.2	25.4	28.2	31.6	35.3	40.4	45.4	50.5	

APPENDIX F
Dispersed Recreation Use by ROS Class
(M) - RVDs

PNRBC Act. Codes	SPM Present Use 1980 RIM	SPM Total Use 1970	1980	1990	2000	2010	2020	2030	% of projected use to IPNF
01	15.1	*12.4 923.8	15.1 1124.5	18.6 1384.3	22.1 1644.2	26.8 1997.0	31.6 2349.8	36.3 2702.6	1
02	--	-- 191.8	-- 212.8	-- 243.4	-- 274.1	-- 317.8	-- 361.6	-- 405.4	--
03	1.7	-- --	1.7 310.3	2.1 386.0	2.5 461.7	3.1 561.7	3.6 661.7	4.2 761.7	.5
04	12.7	10.7 740.4	12.7 881.2	16.0 112.4	17.9 1243.5	20.1 1397.2	22.4 1550.8	24.6 1704.4	1
05	10.2	10.1 344.6	10.2 346.6	10.6 361.6	11.1 376.7	11.8 402.0	12.6 427.4	13.3 452.8	3
06	1.2	.9 209.7	1.2 266.2	1.5 337.2	1.8 408.3	2.3 501.6	2.7 594.9	3.1 688.2	.4
07	--	-- 40.5	-- 52.2	-- 65.3	-- 78.5	-- 101.8	-- 125.1	-- 148.4	--
08	12.5	11.0 471.3	12.0 537.0	14.5 623.4	16.5 709.8	19.3 830.4	22.1 950.9	24.9 1071.4	2
09	25.4	24.7 110.8	25.4 113.7	27.0 120.8	28.5 127.8	31.3 140.0	33.5 150.1	36.0 161.2	22
13	2.3	2.0 46.7	2.3 52.8	2.6 60.8	3.0 68.9	3.5 80.2	4.0 91.4	4.5 102.6	4
15	2.3	1.8 230.1	2.3 290.2	2.9 369.2	3.6 448.3	4.4 555.8	5.2 663.2	6.1 770.6	.8
16	7.3	6.3 142.8	7.3 164.9	8.4 190.4	9.6 215.9	10.8 243.7	12.0 271.5	13.2 299.3	4
Total	90.7	79.9	90.7	104.2	116.6	133.4	149.7	166.2	

APPENDIX F
Dispersed Recreation Use by ROS Class
(M) - RVDs

PNRBC Act. Codes	RN Present Use 1980 RIM	RN Total Use 1970	1980	1990	2000	2010	2020	2030
01	112.3	92.3	112.3	138.2	164.2	199.4	234.7	269.9
02	33.2	29.9	33.2	38.0	42.7	49.6	56.4	63.2
03	16.1	--	16.1	20.0	23.9	29.1	34.3	39.5
04	351.2	295.1	351.2	443.3	495.6	556.8	618.1	679.3
05	89.1	88.5	89.1	93.0	96.9	103.3	109.7	116.4
06	28.4	22.4	28.4	35.9	43.6	53.5	63.5	73.5
07	10.6	8.2	10.6	13.3	15.9	20.7	25.4	30.2
08	29.4	25.8	29.4	34.2	38.8	45.4	52.0	58.6
09	122.2	119.0	122.2	129.8	137.4	150.5	161.3	173.2
13	10.2	8.9	10.2	11.8	13.3	15.5	17.7	19.8
15	11.1	8.8	11.1	14.1	17.1	21.3	25.4	29.5
16	99.3	86.0	99.3	114.6	130.0	146.6	163.4	180.2
Total	913.1	784.9	913.1	1086.5	1219.4	1391.7	1562.1	1733.3

Total RN use less the developed use = Disp. Use

APPENDIX F
Developed Recreation Use by ROS Class
(M) - RVDs
RN Total Use

PNRBC Act. Codes	RN Present Use 1980 RIM	1970	1980	1990	2000	2010	2020	2030	% of projected use to IPNF
		*219.4	267.1	328.8	390.5	474.4	558.1	641.9	
01	267.1	311.7	379.4	467.0	554.7	673.8	792.8	911.8	
		45.6	50.6	57.8	65.2	75.5	86.0	96.4	
02	50.6	75.5	83.8	95.8	107.9	125.1	142.4	159.6	60
			25.6	31.8	38.1	46.4	54.6	62.9	
03	25.6		41.7	51.8	62.0	75.5	88.9	102.4	61
		2.1	2.5	3.2	3.5	4.0	4.4	4.8	
04	2.5	297.2	353.7	446.5	499.1	560.8	622.5	684.1	.7
		.6	.6	.6	.6	.7	.7	.8	
05	.6	89.1	89.7	93.6	97.5	104.0	110.6	117.2	.7
		10.5	13.4	17.0	20.5	25.3	29.9	34.6	
06	13.4	32.9	41.8	52.9	64.1	78.8	93.4	108.1	32
		1.9	2.4	3.0	3.6	4.7	5.8	6.8	
07	2.4	10.1	13.0	16.3	19.5	25.4	31.2	37.0	18
		.8	.9	1.0	1.2	1.4	1.6	1.8	
08	.9	26.6	30.3	35.2	40.0	46.8	53.6	60.4	3
		.2	.2	.2	.2	.2	.3	.3	
09	.2	119.2	122.4	130.0	137.6	150.7	161.6	173.5	.2
		.2	.2	.2	.3	.3	.3	.4	
13	.2	9.1	10.4	12.0	13.6	15.8	18.0	20.2	2
		22.4	28.2	35.9	43.6	54.0	64.4	74.9	
15	29.2	31.2	39.3	50.0	60.7	75.3	89.8	104.4	72
		159.4	184.1	212.4	240.9	271.8	303.0	334.1	
16	184.1	245.4	283.4	327.0	370.9	418.4	466.4	514.3	65
Total	575.8	463.1	575.8	691.9	808.2	961.7	1109.1	1259.7	

* The lower number is the IPNF portion of the total projected use for the RN Class.
The top number is the developed recreation use portion of the lower number.

Demand Tables

APPENDIX F
Dispersed and Developed Recreation Use by ROS Class
(M) - RVDs

PNRBC Act. Codes	RN Present Use 1980 RIM	RN Total Use 1970	1980	1990	2000	2010	2020	2030	% of projected use to IPNF
	IPNF	311.7	379.4	467.0	554.7	673.8	792.8	911.8	
01	379.4	923.8	1124.5	1384.3	1644.2	1997.0	2349.8	2702.6	34
		75.7	83.8	95.8	107.9	125.1	142.4	159.6	
02	83.8	191.8	212.8	243.4	274.1	317.8	361.6	405.4	39
			41.7	51.8	62.0	75.5	88.9	102.4	
03	41.7		310.3	386.0	461.7	561.7	661.7	761.7	13
		297.2	353.7	446.5	499.1	560.8	622.5	684.1	
04	353.7	740.4	881.2	1112.4	1243.5	1397.2	1550.8	1704.4	40
		89.1	89.7	93.6	97.5	104.0	110.6	117.2	
05	89.7	344.6	346.6	361.6	376.7	402.0	427.4	452.8	26
		32.9	41.8	52.9	64.1	78.8	93.4	108.1	
06	41.8	209.7	266.2	337.2	408.3	501.6	594.9	688.2	16
		10.1	13.0	16.3	19.5	25.4	31.2	37.0	
07	13.0	40.5	52.5	65.4	78.5	101.8	125.1	148.7	25
		26.6	30.3	35.2	40.0	46.8	53.6	60.4	
08	30.3	471.3	537.0	623.4	709.8	830.4	950.7	1071.4	6
		119.2	122.4	130.0	137.6	150.7	161.6	173.5	
09	122.4	110.8	113.7	120.8	127.8	140.0	150.1	161.2	108
		9.1	10.4	12.0	13.6	15.8	18.0	20.2	
13	10.4	46.7	52.8	60.8	68.9	80.2	91.4	102.6	20
		31.2	39.3	50.0	60.7	75.3	89.8	104.4	
15	39.3	230.1	290.2	369.2	448.3	555.8	663.2	770.6	14
		245.4	283.4	327.0	370.9	418.4	466.6	514.3	
16	283.4	142.8	164.9	190.4	215.9	243.7	271.5	299.3	172
Total	1488.9	1248.0	1488.9	1778.1	2027.6	2350.4	2671.2	2993.0	

APPENDIX-G

RECREATION PROJECTIONS - NORTH IDAHO[1]

ACTIVITIES (HUNDREDS OF ACTIVITY OCCASIONS)

COUNTIES	YEARS	01 CAMPING	02 PICNICKING	03 SWIMMING	04 SIGHTSEEING & DRIVING	05 FISHING	06 BOATING	07 WATER SKIING	08 WALKING & HIKING	09 HUNTING	10 PLAYING OUTDOOR GAMES	11 BICYCLING	12 GOLFING	13 HORSEBACK RIDING	14 CROSS COUNTRY SKIING	15 ALPINE SKIING	16 OTHER ACTIVITIES
BENEWAH	1970	1212	1576		2910	2242	735	517	2106	279	1419	2410	294	102	54	417	322
44	1980	1485	1787	2495	3491	2309	819	682	2356	397	1782	3134	359	143	67	1345	402
	2000	2159	2187	3503	4985	2411	1284	1059	3717	431	2338	4594	443	197	82	1910	1145
	2020	3080	2753	4772	6785	2638	1903	1541	4848	496	3370	6035	551	270	104	3719	1782
BONNER	1970	2865	1941		6048	1605	1252	401	2010	417	1530	10339	321	431	259	1710	422
41	1980	3515	2034	2505	7180	1502	1473	495	2264	425	1795	11852	355	452	1120	1255	1041
	2000	5109	2494	3344	10175	1562	2308	520	2915	470	2486	6734	521	521	1218	1702	1145
	2020	7330	3128	4294	14290	1681	3110	1172	3803	546	3318	7123	697	694	1543	2509	1881
BOUNDARY	1970	1979	1325		4306	971	646	228	1972	515	1121	2448	197	280	1278	341	1030
50	1980	2407	1371	1483	4995	868	751	267	1642	304	1243	2528	230	322	1470	429	1229
	2000	3532	1636	1783	6986	934	1055	422	2022	333	1490	3061	319	319	1803	1874	1653
	2020	5090	2034	2246	9782	870	1454	633	2513	398	2304	3741	450	405	1946	2132	2426
CLEARWATER	1970	1176	783		2502	1013	606	200	1829	526	1277	2831	220	237	1005	913	642
57	1980	1456	761	1472	2960	902	665	236	1848	510	1279	2769	242	335	980	1105	719
	2000	2139	866	1792	4206	906	890	380	2201	574	1536	3235	319	494	1510	1207	956
	2020	3107	1090	2301	5962	982	1212	597	2764	671	1900	3991	459	483	1214	2414	1216
IDAHO	1970	3351	987		11578	933	462	172	2118	646	1683	941	137	259	938	643	781
69	1980	4129	1005	725	5409	860	527	214	2088	639	1756	996	167	355	200	794	837
	2000	6106	1216	1005	7726	859	748	331	2394	709	2142	1287	243	393	917	1246	1115
	2020	8842	1564	1379	10946	938	1037	519	2862	862	2625	1686	358	467	1113	1826	1633
KOOTENAI	1970	2437	3341		6693	2699	2472	655	4008	553	2602	7046	539	798	1272	1794	918
61	1980	2909	3872	5429	8069	2932	3255	866	4709	571	3344	9034	697	936	1455	2318	1345
	2000	4332	5107	8764	11977	3285	5241	1419	6462	671	5435	14621	1139	1245	1993	3645	1357
	2020	6148	6988	13337	16194	3907	7919	2181	8832	793	8329	22469	1749	1769	2792	5547	1309
SHOSHONE	1970	1167	1630		3377	744	531	145	3126	507	2699	7127	784	782	1751	1154	518
68	1980	1430	1856	4800	4112	817	692	194	3628	640	3508	9246	911	1015	1815	1502	522
	2000	2091	2208	7049	5731	866	1029	296	4887	579	5173	13,403	1156	1247	2207	3307	774
	2020	2999	2925	9800	7937	970	1426	421	6267	961	7830	19,479	1369	1667	3176	4910	1044
LEWIS	1970	713	201		1367	196	111	48	1282	110	731	340	35	200	351	81	403
70	1980	887	231	368	1656	195	123	64	1382	114	822	421	125	233	378	91	470
	2000	1307	298	584	2409	269	203	101	1714	128	1102	651	193	374	482	24	638
	2020	1893	421	870	3460	348	284	129	2224	151	1499	965	300	385	624	40	901
SHOSHONE	1970	2597	3301		6677	2830	2284	627	4036	996	3635	10262	642	889	2081	2377	909
71	1980	3183	3740	6727	7765	2898	2927	815	4652	1029	4536	12713	838	1007	4558	2397	1021
	2000	4606	4992	10251	11209	3261	4545	1301	6198	1160	6901	19,199	1234	1369	5981	4502	1432
	2020	6561	6753	14973	18734	3739	6707	1962	8414	1374	10044	27889	1795	1778	8031	6894	1773
NEZPERCE	1970	1162	892		3549	1293	611	196	4068	354	2800	1753	255	917	1304	1	502
74	1980	1420	1066	1828	4329	1326	798	262	4664	396	3500	2179	324	1141	1630	1	577
	2000	2098	1440	3022	6184	1483	1049	431	6222	448	5343	4103	541	1574	2707	1	1033
	2020	3003	1977	4619	8684	1734	1384	661	8514	526	7763	6300	797	2101	4101	1	1583

[1] Recreation Projections for North West - taken from "Total Trips" received "columns"

Provided By Bob Mealey, PNRBC, 10/80

APPENDIX H

Recreation Use IPNF (M) RVDs

RIM Codes Activities	1976	1976	1977	1978	1979	1980
1.1 Viewing Scenery	1.3	1.3	1.5	2.0	2.4	5.2
11.1 Auto	163.5	172.6	185.1	191.0	183.3	208.0
11.2 Motorcycles	23.1	32.4	40.4	40.7	51.1	53.5
11.3 Snowmobiling	60.7	71.0	78.8	98.2	94.4	104.9
12.2 Power Boats	24.4	27.6	30.2	33.1	29.9	33.4
14.1 Hiking	21.0	28.5	33.1	37.7	46.5	48.2
14.3 Horseback	9.0	9.1	11.2	11.4	14.0	13.6
15.1 Canoeing	4.7	5.3	5.9	6.7	8.5	10.1
22.1 Swimming	23.7	25.7	30.6	31.2	36.6	43.4
22.3 Waterskiing	4.9	4.9	5.3	8.6	12.0	13.0
31.1 Fishing (CW)	77.1	91.8	97.4	103.3	96.1	104.3
41.1 Camping (Gen)	107.5	107.9	153.1	151.0	204.9	153.1
41.2 Camping (Auto)	72.9	93.6	95.0	93.8	98.0	93.0
41.3 Camping (Trailer)	79.0	80.1	77.7	75.4	72.1	81.9
41.4 Camping (Tent)	88.0	96.0	75.1	69.6	63.4	73.0
43.1 Picnicking	44.8	51.9	64.3	73.0	75.0	83.8
51.3 Skiing (DH)	32.4	45.6	9.8	16.6	28.8	21.7
51.5 Skiing (XC)	3.2	4.1	19.0	7.4	17.7	20.8
61.1 Hunting (BG)	133.3	137.3	119.3	122.2	119.7	138.4
61.3 Hunting (UBrd)	19.5	16.8	17.5	17.9	17.3	20.5
64.1 Gathering FP	34.0	38.9	44.6	48.7	45.2	63.8
81.7 Int. Signs	.6	.8	1.8	1.8	9.6	20.4
All Other Activities						160.9
	1028.6	1143.4	1196.7	1241.3	1326.5	1612.4
	89% of total use	90% of total use	90% of total use	90% of total use	88% of total use	100% of total use

Appendix I

Recreation

Trail* Miles by ROS Classes

	D1	D2	D3	D4	D6	D7	D8	D9	Total	%
Prim	--	--	--	--	--	--	8	23	31	2
SPNM	12	35	4	--	19	--	27	68	165	12
SPM	54	77	47	75	--	76	25	128	482	33
RN	52	131	54	28	143	192	78	85	763	52
R	3	8	--	1	2	1	3	--	18	1
									1459	100

*Trail miles as measured on a map with a scale of 1" = 1 mile, not actual miles.

Trails per ROS class will be used to predict trail and hiking use by ROS class.

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